

AMENDMENTS TO THE CLAIMS

1. ~~{1}~~(Currently Amended) An oil reconversion device for waste plastics characterized by the fact that in an oil reconversion device for waste plastics which performs thermal cracking by heating a waste plastic and converts the generated cracker gas into oil by cooling, and is equipped with a thermal cracking bath which has a bath main body placed inside a coil, induction-heats the bath main body by feeding a high-frequency current through the coil, and thermally cracks at least a molten plastic obtained from the waste plastic to generate a cracker gas, an injection port through which the waste plastic is injected, a feeder which supplies the waste plastic injected through the injection port to the thermal cracking bath via a forced or direct feeding means without a bath, and an oil conversion processor which cools and converts the cracker gas generated by the thermal cracking bath into oil.

2. ~~{2}~~(Currently Amended) The oil reconversion device for waste plastics described in ~~Item 1~~ claim 1 of ~~Scope of Claims~~ characterized by the fact that the feeder is equipped, as a forced feeding means, with an extruder having a heating cylinder and an extruding screw which melts and extrudes the waste plastic injected into the injection port.

3. ~~{3}~~(Currently Amended) The oil reconversion device for waste plastics described in ~~Item 1~~ claim 1 of ~~Scope of Claims~~ characterized by the fact that the feeder is equipped, as a direct feeding means, with a waste plastic injector which has a hopper to inject the waste plastic into the bath main body, has an open/close cap to open/close the injection port of this hopper and to

open/close an injection path between the hopper and the bath main body, and is constructed so that an inert gas can be sent into the hopper.

4. ~~[4]~~(Currently Amended) The oil reversion device for waste plastics described in ~~Item 3~~ claim 3 of Scope of Claims characterized by the fact that the waste plastic injector has an injection pipe composing the injection path and is constructed by installing the open/close valve to this injection pipe and installing an open/close damper to the injection pipe in the the bath main body side of the open/close valve.

5. ~~[5]~~ (Currently Amended) The oil reversion device for waste plastics described in ~~Item 3~~ claim 3 of Scope of Claims characterized by the fact that the thermal cracking bath also functions as the melting bath which melts the waste plastic.

6. ~~[6]~~ (Currently Amended) The oil reversion device for waste plastics described in ~~Item 4~~ claim 1 of Scope of Claims characterized by the fact that the thermal cracking bath is equipped with an agitating mechanism unit having an agitate-scraping unit which agitates a molten plastic contained in the bath main body and scrapes the molten plastic adhering to the inner wall of the bath main body.

7. ~~[7]~~ (Currently Amended) The oil reversion device for waste plastics described in ~~Item 6~~ claim 6 of Scope of Claims characterized by the fact that the agitating mechanism unit is

equipped with a heater which heats up the top surface of the molten plastic contained in the bath main body by being installed to the agitate-scraping unit.

~~8. [8]~~ (Currently Amended) The oil reversion device for waste plastics described in ~~Item 1 or Item 6 of Scope of Claims~~ claim 1 characterized by being equipped with a residue processor which collects and heats residue plastic generated inside the bath main body and supplies a generated cracker gas to the oil conversion processor.

~~9. [9]~~ (Currently Amended) The oil reversion device for waste plastics described in ~~Item 1 or Item 8 of Scope of Claims~~ claim 1 characterized by being equipped with an off-gas processor having a burn processor which burns an off-gas generated in the processes of sequentially processing the waste plastic at a specified temperature or higher.

10. (New) The oil reversion device for waste plastics described in claim 6 characterized by being equipped with a residue processor which collects and heats residue plastic generated inside the bath main body and supplies a generated cracker gas to the oil conversion processor.

11. (New) The oil reversion device for waste plastics described in claim 8 characterized by being equipped with an off-gas processor having a burn processor which burns an off-gas generated in the processes of sequentially processing the waste plastic at a specified temperature or higher.